# Core Fund Annuity Adjustments and Effective Rate Projections 

## Employee Trust Funds Board

 March 21, 2019
## Current Value of Annuities*

| If You <br> Retired in | A \$1,000 Core <br> Annuity is <br> Receiving | The Annual <br> Rate of <br> Increase is | A \$1,000 Variable <br> Annuity is <br> Receiving | The Annual <br> Rate of Increase <br> is | The Annual <br> Change in CPI is |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2014 | $\$ 1,080$ | $1.6 \%$ | $\$ 1,061$ | $1.2 \%$ | $1.5 \%$ |
| 2009 | $\$ 1,131$ | $1.2 \%$ | $\$ 1,821$ | $6.2 \%$ | $1.8 \%$ |
| 2004 | $\$ 1,131$ | $0.8 \%$ | $\$ 1,280$ | $1.7 \%$ | $2.1 \%$ |
| 1999 | $\$ 1,336$ | $1.5 \%$ | $\$ 1,082$ | $.4 \%$ | $2.2 \%$ |
| 1994 | $\$ 1,785$ | $2.3 \%$ | $\$ 1,862$ | $2.5 \%$ | $2.2 \%$ |

[^0]
## A Look at Core Annuity Increases versus Cost of Living

Change in Value of 1994
Annuity
(3,181 annuitants)


Change in Value of 1999
Annuity
(5,387 annuitants)


## A Look at Core Annuity Increases versus Cost of Living

Change in Value of 2004 Annuity
(7,118 annuitants)


Change in Value of 2009
Annuity
(7,870 annuitants)
\$28,000
\$27,000
\$26,000
\$25,000
\$24,000
\$23,000
\$22,000
\$21,000
\$20,000


## A Look at Core Annuity Increases versus Cost of Living

Change in Value of 2014
Annuity
(9,339 annuitants)


## Annuity Adjustment Projections

## Annuity Adjustment Projections

- Projections only. Several assumptions and estimates used.
- Only an actuarial valuation can accurately calculate the annuity adjustments.
- Useful for anticipating the magnitude, not exact amount, of future adjustments.


## The Basics

- Annuities will be increased if annuity reserve surplus provides at least a $0.5 \%$ increase. Annuities will be reduced if annuity reserve shortfall would require at least a - $0.5 \%$ adjustment.
- Negative adjustments can only reduce increases granted in prior years. A core annuity cannot be reduced below the original value.
- In calculating annuity adjustments, a $5.0 \%$ assumed investment return is used to fund the original benefit. Thus, in a world where experience matched assumptions each year perfectly, annuitants would receive a $2.0 \%$ adjustment each year ( $7.0 \%$ less $5.0 \%$ ). We don't live in that world.


## Assumptions

- Based on 2018 Core Trust Fund net of fee investment return.
- $0.2 \%$ per year is reserved for mortality improvement and is not available for annuity adjustments.
- The projections include 2015-2018 investment gains and losses carried forward in the Market Recognition Account (MRA).


## Market Recognition Account

- Investment gains / losses are "smoothed" through the Market Recognition Account (MRA):
- The MRA is intended to give recognition to long-term changes in asset values while minimizing the impact of short-term fluctuations in the capital markets;
- Investment gains equal to the assumed rate of 7.0\% are recognized;
- The difference between actual gains or losses and the assumed rate is spread equally over 5 years.


## Investment Gain/Loss to be Recognized in Future Years

|  | Year to Be Recognized <br> (millions \$) |  |  |  |  | Core Net of <br> Fee |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year Earned | 2018 | 2019 | 2020 | 2021 | 2022 | Investment <br> Return |
| 2019 |  | $?$ | $?$ | $?$ | $?$ | $?$ |
| 2018 | $(2,048)$ | $(2,048)$ | $(2,048)$ | $(2,048)$ | $(2,048)$ | $(3.66 \%)$ |
| 2017 | 1,461 | 1,461 | 1,461 | 1,461 |  | $15.82 \%$ |
| 2016 | 119 | 119 | 119 |  |  | $8.29 \%$ |
| 2015 | $(1,344)$ | $(1,344)$ |  |  |  | $(.67 \%)$ |
| 2014 | $(242)$ |  |  |  |  | $5.40 \%$ |
| Totals | $(2,054)$ | $(1,812)$ | $(468)$ | $(587)$ | $(2,048)$ |  |

## Result of 7.0\% Investment Return in 2019-2022

|  | $\mathbf{2 0 1 8}$ | $\mathbf{2 0 1 9}$ | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| SWIB Net Investment Return | $(3.66 \%)$ | $7.0 \%$ | $7.0 \%$ | $7.0 \%$ | $7.0 \%$ |
| Effective Rate | $5.0 \%$ | $5.0 \%$ to $5.4 \%$ | $6.4 \%$ to $6.8 \%$ | $6.3 \%$ to $6.7 \%$ | $4.8 \%$ to $5.2 \%$ |
| Average Annuity Adjustment | $0 \%$ | $0 \%$ to $(.7 \%)$ | $.6 \%$ to $1.0 \%$ | $.7 \%$ to $1.1 \%$ | $0 \%$ to $(.5 \%)$ |

## Result of 5\% Investment Return in 2019 and 7.0\% in 2020-2022

|  | $\mathbf{2 0 1 8}$ | $\mathbf{2 0 1 9}$ | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| SWIB Net Investment Return | $(3.66 \%)$ | $5 \%$ | $7.0 \%$ | $7.0 \%$ | $7.0 \%$ |
| Effective Rate | $5.0 \%$ | $4.6 \%$ to $5.0 \%$ | $6.0 \%$ to $6.4 \%$ | $5.8 \%$ to $6.2 \%$ | $4.3 \%$ to $4.7 \%$ |
| Average Annuity Adjustment | $0 \%$ | $(.7 \%)$ to $(1.1 \%)$ | $0 \%$ to $.5 \%$ | $.8 \%$ to $1.2 \%$ | $(.6 \%)$ to (1.0\%) |

## Result of 0\% Investment Return in 2019 and 7.0\% in 2020-2022

|  | $\mathbf{2 0 1 8}$ | $\mathbf{2 0 1 9}$ | $\mathbf{2 0 2 0}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| SWIB Net Investment Return | $(3.66 \%)$ | $0 \%$ | $7.0 \%$ | $7.0 \%$ | $7.0 \%$ |
| Effective Rate | $5.0 \%$ | $3.6 \%$ to $4.0 \%$ | $5.0 \%$ to $5.4 \%$ | $4.8 \%$ to $5.2 \%$ | $3.2 \%$ to $3.6 \%$ |
| Average Annuity Adjustment | $0 \%$ | $(1.6 \%)$ to $(2.0 \%)$ | $0 \%$ to $(.8 \%)$ | $0 \%$ to (.7\%) | $(1.7 \%)$ to $(2.1 \%)$ |

Questions?

## Thank you


$\oiiint^{3}$ etf_wi $\#$ etf.wi.gov $\aleph_{\text {ETF E-mail Updates }}^{\text {608-266-3285 }} \begin{gathered}\text { 1-877-533-5020 }\end{gathered}$


[^0]:    *Including annuity adjustments (if any) to be made effective April 1, 2019

